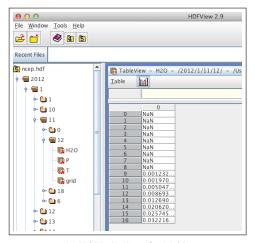
SFIT2 retrieval setup Draft, November 7, 2013

## **Profile data in FTIR HDF files** 1

- ▶ Profile data or scalar and accompanying uncertainties are stored in SI units
- ▶ Uncertainty data are always covariance matrices (even for scalar quantities!)
- ▶ A subgroup of an HDF file that contains profile data will always have this structure
  - ► 03: contains profile data
  - ▶ H2O: contains profile data for the given species
  - ▶ grid: contains the height grid of the profile
  - ▶ gridboundaries: contains the boundaries array of the grid (with shape= (2,grid.shape)): first row is the row of lower boundaries, second row is the row of upper boundaries.
  - airmass: contains the air column profile for the specified grid (this is for regridding purposes)
  - ▶ uncertainties: a new subgroup with keys (O3/random or O3/systematic, ...)



000 **≥** □ **● 1 5** Recent Files /Users/blangero/Documents/BIRA/SFIT4/NO2.hdf ⊶ 🗀 barcos m k params e e E CH4 # H2O MO2 **3** O3 grid uncertainties • **■** H2O mando syst ⊶ 🗀 NO2

HDFView 2.9

(a) NCEP database for Maido

(b) SFIT4 retrieval database

Figure 1: Examples of profile data